

# SHOP talk

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Plant Operations Support Program

Spring 2001

## Restored Historic Building Proves Value of Seismic Upgrades Weathers Washington's 6.8 Shaker

By Jim Erskine & Bob MacKenzie

A neo-classical revival-style building at 801 Capitol Way in downtown Olympia, Washington, is reminiscent of a Greek temple with its seven two-story Corinthian columns. Constructed in 1914, the "Old Federal Building" includes a sandstone façade, terra cotta frieze and a number of other reminders of its past. It was constructed as Olympia's first post office, serving in that capacity until 1964 when a new mail facility was constructed nearby. Interestingly, concerns about seismic stability of the historic structure caused it to be replaced by the U.S. Postal Service. The building then served as a federal office building for an additional 30 years until its condition was considered too deteriorated for further use.

In 1998, Washington state's Department of General Administration (GA) acquired the building from the federal government, with the provision that the historic integrity of the building be preserved as the last of its type in the capitol city of the state. State officials suggested the building be renamed for the contributions of James Dolliver, who served as chief justice of the Washington State Supreme Court.

GA renovated the building for use by the Corporations Division of the Secretary of State to house more than 40 staff and an archive of original corporation



Nick Cockrell, GA's design project manager, pauses during an on-site visit to the rejuvenated and seismically upgraded Dolliver Building in Olympia. (Photo by Bob MacKenzie)

documents. Demolition began in April 1999 and the \$3 million project was completed in the summer of 2000 with a complete mechanical, electrical and interior upgrade in compliance with the 1997 UBC. One of the important aspects of the renovation was installation of

seismic shear walls from the basement to the top of the second floor, with 3/4" steel rebar on 12" centers encased in 8" of shotcrete to stiffen the concrete and brick frame of the building between 10' high windows and along the north wall of the structure.

A shotcrete wall was added to the exterior of the elevator shaft to dissipate shear forces from earthquakes down to the building's foundation. On the third floor, a "strongback" web system of steel was fastened to the exterior wall from floor to roof to reduce flex and to provide additional stiffening.

Within the building, efforts were made to recreate the original grand lobby with 17' ceilings, topped with plaster crown moldings and pendant light fixtures. The fire suppression system, new HVAC and conduits carrying both electrical and communications are hidden behind plaster panels. Panels of Alaska gray marble were salvaged from demolished buildings to extend the original marble wainscoting.

"We wanted to restore the grandeur of the space," says Nick Cockrell, facilities asset manager for GA's Division of Real Estate Services. The division was responsible for design decisions on the project. "What people received when it was the ambiance of a historical structure with the functions and seismic safety of a modern office building."

*Please see Seismic, page 8*

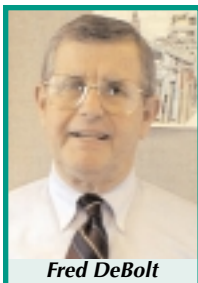
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# "Super-Six" Nominated for Consortium Hall of Fame

Six Consortium members - professionals in the fields of facilities maintenance, capitol projects, engineering and architecture - have been nominated to the Consortium Hall of Fame as Honorary Lifetime Members. The "Super Six" are Fred DeBolt, Robert deGrasse, Tom Henderson, Fred King, Jeraldine McCray and Tom Neff. This round - for the first time - included public facility leaders who have yet to retire or depart public service. The criteria for this coveted award:

- \* at least 10 years in the field of facilities/plant operations and/or engineering and architectural services
- \* demonstrated leadership success
- \* validated systemic, innovative use of public/private resources
- \* current or adjunct member of the POS Consortium
- \* endorsed by the Consortium "kitchen cabinet."



Fred DeBolt

**Fred DeBolt** has, for the past 12 years, served as the administrator of the facilities and equipment office in the Washington State Department of Transportation. Prior to joining state

government, he served his country for 30 years as an Army officer. His was the first public agency to join the Consortium and he is considered a Consortium "founding father."

**Robert deGrasse, P.E.**, former director of campus operations and capital projects at Bellevue Community College, is a frequent

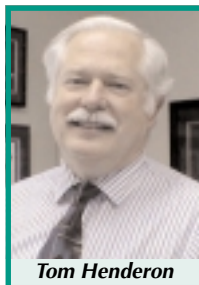


Robert deGrasse

the Washington Mutual Bank Account for CB Richard Ellis in Seattle.

**Tom Henderson** has, since 1997, served as assistant director for Capital Programs in the State Board of Community and Technical Colleges in Olympia. He served previously as a capital budget assistant in the state's Office of Financial Management. He was instrumental in the development of the POS Consortium, and was present during the Governor Gary Locke's signing of the bill creating the program.

**Fred King, A.I.A.**, retired from state service in January after having served the past two years as assistant vice-president for the Capitol Projects Office at the University of Washington in Seattle. King served previously as assistant director of Engineering and Architectural Services, Department of General Administration in Olympia. King



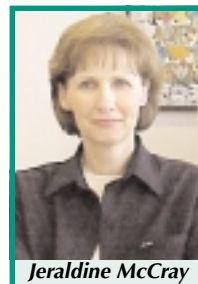
Tom Henderson



Fred King

was instrumental in General Administration's creation and development of the POS program.

**Jeraldine McCray** is assistant vice-president for Facilities Services at the University of Washington in Seattle. Since 1965, McCray has served as UW's parking division manager, director of the campus transportation office, and director of its physical plant department, assuming her current role in 1994. She has been instrumental in proving the Consortium's value to higher education facilities.

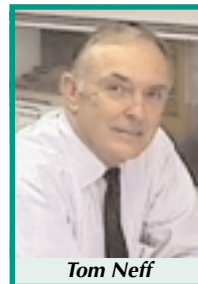


Jeraldine McCray

**Thomas Neff** is commander of the property management division in the Washington State Patrol in Olympia. He has more than 31 years experience in facilities management and has been a strong supporter of the Consortium.

Neff's responsibilities include management of 92 employees; a centralized statewide facilities maintenance, operating and capital program; and a biannual budget of more than \$55 million.

**Congratulations on behalf of the Consortium and thanks for your continued support.**



Tom Neff

## The Plant Operations Support Consortium

*New members appear in green and renewing members are listed in gray type. Welcome and thanks on behalf of the Consortium!*

### School Districts

Cascade  
Chehalis  
Clover Park  
Columbia-Burbank  
Coquitlam, BC  
Delta, BC  
Eatonville  
Enumclaw  
Federal Way  
Hoquiam  
Issaquah  
Ketchikan, AK  
Lacrosse  
Marysville  
Mission, BC  
Montesano  
Mukilteo  
Northshore  
North Thurston  
Oak Harbor

### Ocean Beach

Ocosta  
Peninsula  
Riverside  
Rochester  
Sequim  
Snohomish  
Tadino  
Wenatchee  
White River  
Wishkah Valley  
Yelm

### Universities/Colleges

Bellevue CC  
Big Bend CC  
Clark College  
Columbia Basin  
Cmty Colleges of Spokane  
Highline CC  
Renton TC

Skagit Valley College  
The Evergreen State College  
Univ. of Washington

### Municipalities

City of Bonney Lake  
City of Tukwila  
City of Snohomish  
Clark County  
Cowlitz County  
Jefferson County Public Works  
Kitsap County  
Lewis County  
Pierce County  
Whatcom County

### Canada

Attorney General, BC  
Municipality of Peel, ON

### Ports

Port of Anacortes  
Port of Edmonds  
Port of Ephrata  
Port of Longview  
Port of Mattawa  
Port of Olympia  
Port of Pasco  
Port of Ridgefield  
Port of Seattle, SeaTac Airport  
Port of Sunnyside

### States

Alaska  
Idaho Dept. of Admin.  
Oregon Dept. of Admin. Svc.  
Oregon Youth Authority

### Washington State Agencies

Corrections  
Ecology  
General Administration  
Health  
Information Services  
Liquor Control Board  
Military  
Natural Resources  
Parks & Recreation  
School for the Deaf  
Social & Health Services  
Transportation  
Veterans Affairs  
Washington State Patrol



# Lexan Restoration Project nabs national, governor awards

A collaborative initiative of the Washington Corrections Center (WCC) in Shelton, the Plant Operations Support (POS) Consortium and 3M Corporation has been recognized with the 2001 Innovations Award of the National Association of State Facilities Administrators and the Washington State Governor's Award for Service and Quality Improvement.

The Lexan Restoration Project, first reported in summer 2000 Shop Talk, uses inmate labor and is predicated on film and abrasive products provided exclusively by the 3M Corporation. WCC in Shelton partnered with the Plant Operations Support and 3M to develop a regimen that can restore visual clarity to a damaged sheet of Lexan or Plexiglas for one-tenth of the cost of a new sheet. In its first seven months of operation, the innovative project saved Washington Department of Corrections more than \$125,000 and promises to surpass \$500,000 statewide by July 2001. Consortium members can tap into this winning program by shipping their damaged sheets to the WCC and utilizing a now proven maintenance service to cut operating costs.

The NASFA Innovations Award recognizes outstanding achievement by

a state facility organization in establishing an innovative new program or improving an existing program. An award is presented to one program each year while three other programs receive honorable mention. Washington's LEXAN Restoration Project competed against 21 other state programs for this year's award.

The Washington State Governor's Award for Service and Quality Improvement was established in January 1998. It recognizes teams in state government that demonstrate excellence in one or more of the following areas:

- \* Cutting red tape.
- \* Improving customer service.
- \* Improving efficiency.
- \* Reducing and/or avoiding costs.



*Members of the Lexan Restoration Project team pose during the Department of Correction's Quality Award event earlier this year.*

*From left to right are Corrections Secretary Joe Lehman; Marianne McNabb, retired SW Region administrator; Jim Blodgett, former WCC superintendent and current SW Region administrator; Norm Pacholke, retired WCC plant manager; Jim Miller, project coordinator; Gary Jones, WCC associate superintendent; Dwight Johnson, WCC plant manager; Rhonda Roop, 3M Seattle-based representative; Bob MacKenzie, manager, POS Consortium; Charlie Hicks, Sr., retired WCC plant manager; Mike Farley, WCC assistant plant manager; and Rene' Ewing, special assistant to the Governor for Quality Programs.*

**For further information on the Lexan Restoration Project, contact Bob MacKenzie (360) 902-7257; E-mail: [bmacken@ga.wa.gov](mailto:bmacken@ga.wa.gov)**

## SPOA Hosts 37th Annual Conference in Okanagan Valley

The School Plant Officials Association (SPOA) of British Columbia is hosting its 37th Annual Conference and Trade Show June 4-8, 2001. The event takes place in the city of Penticton in the south Okanagan Valley region of B.C. The conference provides concurrent sessions, roundtable discussions, keynotes, an excellent trade show and many networking opportunities for personnel in plant operations and maintenance.

"We're certain this conference would be of benefit to Consortium members, especially those in K-12 school environments," said John Vantol, president of SPOA of B.C. "The agenda and networking potential will make the event worth the trip."

**Details on registration appear in the professional development section of the Plant Operations web page @ [www.ga.wa.gov/plant/Profdev.htm](http://www.ga.wa.gov/plant/Profdev.htm) For questions or clarification, contact Vantol at (604) 943-3314 or E-mail: [jvantol@deltasd.bc.ca](mailto:jvantol@deltasd.bc.ca)**



**Shop Talk** is a quarterly publication of the Plant Operations Support program. The newsletter is intended to be an informative and operationally-oriented medium for public facilities managers. Contents herein are also available on the program's web site at [www.ga.wa.gov/plant](http://www.ga.wa.gov/plant)

We welcome feedback on the newsletter's contents and input from readers. We reserve the right to edit correspondence to conform to space limitations. Bob MacKenzie is program manager and editor (360) 902-7257 or e-mail [bmacken@ga.wa.gov](mailto:bmacken@ga.wa.gov). Special thanks to Steve Valandra, AnneMarie Bammert, Phil Person and Amanda Leaverton for editing assistance. Plant Operations Support does not make warranty or representation, either expressed or implied, with respect to accuracy, completeness or utility of the information contained herein. Plant Operations Support assumes no liability of any kind whatsoever resulting from the use of, or reliance upon, any information contained in this newsletter.

State of Washington  
Department of General Administration,  
PO Box 41012, Olympia, WA 98504-1012.  
Marsha Tadano Long, Director.

To request this information in alternative formats please call (360) 902-7215, or TDD (360) 664-3799.

# Anatomy of a Demolition

**Consortium helps Peninsula School District “bring it down”**

**Story and photos by Shop Talk staff**

Last fall, we reported in *Shop Talk* how the Plant Operations Consortium had pioneered a new service: operational construction management. The service, now available to consortium members, withstood its first test of fire: a partnership with the Peninsula School District, a member of long standing, toward the demolition of Henderson Bay Alternative High School



*Henderson Bay High School entrance... pre-demo.*

in Gig Harbor, Washington. The goal of this partnership enabled Peninsula SD to turn the ground where an old school used to sit over to the City of Gig Harbor - less the underground storage tanks, asbestos and 33,000-plus square feet of brick and wood structure.

The partnership initially began as a result of the resourceful thinking of Jim Bellamy, facility planner for Peninsula School District.



**Phillip Person**, Consortium construction manager, Henderson Bay High School project.

“Like most facilities managers, Jim’s plate was already overflowing when he was given the additional responsibility of completing this pre-demolition project on an equally condensed timeline,” said Phil Person, Consortium senior project coordinator. “Jim turned to the Consortium staff and asked them if they could assist in completing the project within the budgeted time and funding, enabling Jim to keep his primary focus on his many other duties.”

Peninsula SD and the Consortium agreed upon a plan that would split the overall demo project into two phases. Phase 1 - completed in November 2000 - saw the removal of most of the asphalt, two underground storage tanks, the four modular-style portable outbuildings and a significant amount of asbestos-containing material. Phase 2 - completed March 2001 - resulted in the removal of the remainder of the school’s property and buildings, and the return of the site to grade.

Person took on the role of project manager. In turn, Plant Ops

entered into agreements with various contractors to complete the project. Fortunately, Plant Ops only had to go as far as a fellow Consortium member, the Department of Corrections and Correctional Industries (CI) for the majority of the Phase 1 labor.

“CI proved to be a perfect fit for this task due to the depth of skills and experience they brought to the table,” Person said. “Ken Mensching, John Orton and their CI staff had the required environmental services experience, as well as the skills and knowledge needed for UST removal and disposal.”

While Phase 1 neared completion, Person organized a team to develop the plans and specifications for Phase 2 of the project. The key members of this team were Chuck Leyster (specifications), Cipriano Araiza (drawings), AnneMarie Bammert (administration), and Lynda Hollinger (contracts) of General Administration. In addition, Anna Crickmer, a civil engineer with Washington state Department of Transportation (another Consortium member), provided “invaluable advice and assistance” in developing the plans and specifications for Phase 2.

Plant Ops advertised part of the Phase 2 project in mid-November 2000 and the GA contracts section held the bid opening in early December.

“The hard work and attention to detail of the Plant Ops team, Peninsula School District and the preparatory work completed by CI in Phase 1 certainly was rewarded with the submission of nine firm bids,” said Person.

The low and successful bidder - William Dickson Co. - came in significantly under the engineer’s estimate. General demolition began in mid-February 2001.

Oversight by Plant Ops, Peninsula School District and the



**Jim Bellamy**, Peninsula SD facility planner, and **John Orton**, CI project coordinator, review the modular buildings demolition removal during Phase 1.



Communication during the project was enhanced with scheduled in-progress reviews. From left to right, **Tom Quilan**, City of Gig Harbor; **Jim Bellamy**, Peninsula SD; and **Jason Roosa** and **Ted Paggett**, from William Dickson Co., general contractor, discuss demolition issues.

Asbestos abatement can be one of the greatest challenges during a demolition project and is one of the most likely reasons for project change orders. Pictured here is a pipe elbow insulated with asbestos insulation. Fortunately, the straight runs were insulated with fiberglass.





contractor resulted in a "flawless demolition project — accomplished on time and on budget," said Person.

"The contractor dedicated a full-court press to the demolition, including multiple excavators and haul capacity, making short work of the demolition," Person said. "Once the structure was down, the soil compacted and the site graded, the contractor then completed erosion prevention measures and seeded."



*Atypically dry northwest weather prompted the general contractor to put into effect additional dust control measures.*

once seemed a "mountain too tall" is now a level site. The project proved the worth of operational construction management - Consortium style.

**For further information about Consortium construction management services, contact Phil Person @ (360) 902-0434 or E-mail: [pperson@ga.wa.gov](mailto:pperson@ga.wa.gov)**



*Building materials were sorted by type and quantity to maximize recycling and re-use opportunities.*

The construction team invited Dave Skinner and Dave Brereton, City of Gig Harbor public works officials, to the final construction meeting to verify the work met with their expectations for taking ownership of the site. Skinner and Brereton indicated that the efforts of the construction team met all their expectations and that they were very satisfied with the site.

"Plant Ops' unique ability to package the consultative and project/construction management, as well as employ a combination of consortium services and public bidding, resulted in our saving no less than \$150,000 below our cost estimate," said Bellamy.

Today the site is in the hands of the City of Gig Harbor. What



*The project resulted in a seeded, leveled field "returned to its original grade." The City of Gig Harbor plans to use the site for a new City Hall and other municipal activities.*

## Buy Green, Get Clean

**Members would do well to explore use of "friendly products"**

Need to find cleaning products that will tackle a variety of surfaces and materials? Are you allergic to the typical cleaners found on the market? Is harmlessness to the natural environment important to you or your agency?

If you answered "yes," you may have already discovered two of the newest environmentally conscious cleaning products available through Washington state contracts: SOQ and Quick 'n Brite.

Officials in Washington state government have gone as far as to make the protection of salmon in our waters - including the waters themselves - a special goal. Governor Gary Locke's Salmon Recovery Project was the

guideline used in selecting these two products, both of which can be ordered through the state's Central Stores outlet. Both products, which had to pass strict toxicity tests, are available through Central Stores or on contract # 11399. Visit the Central Stores web site @ <http://www.ga.wa.gov/centralstores/>

Formulated and manufactured by a firm in Tempe, Arizona, SOQ Environmental Technology is a minority-owned business.

"We not only developed this product, we also did the formulation," said Vernon Carson, sales manager. "Our specialty is manufacturing environmentally friendly products."

Quick 'n Brite, whose 'home' is in Mountlake Terrace, Washington, has been marketed for home use for a number of years. It is now being offered commercially.

"Our company is eager to demonstrate that Quick 'n Brite is not only just safer (to use)," said Allan Gourlie, company vice president. "It actually works better than many of the products that are not environmentally friendly because it's just as strong as they are."

Gourlie points out that not only are there cost savings due to its effectiveness when diluted, "but there are fewer employee missed days because there are no fumes, so users don't even have to wear gloves or masks. Quick 'n Brite 'digests' oil and grease and is non-streaking. It's good for glass or metal surfaces and is water-soluble. It'll even clean concrete, ovens, grills and vehicles inside and out."

**For further information about contract # 11399, contact Mary Walcott, State Procurement Officer, (360) 902-7433, E-mail: [mwalcot@ga.wa.gov](mailto:mwalcot@ga.wa.gov)**

# Sea-Tac International Airport Building Department Takes Flight

## First permit issued in just eight weeks

by Bob MacKenzie

The building code of Hammurabi, founder of the Babylonian Empire, is the earliest known code of law. Historians did not clearly differentiate between "building laws" and "building construction specifications," but the important thing is that controls have been around and long time. Of more relevance to Consortium members is that Sea-Tac International Airport - with an ambitious multi-year construction budget of more than \$10 billion - has successfully developed, staffed and placed on-line its own building department. By doing so, the Port of Seattle Commission and Sea-Tac Airport executive management ensure

adequate controls will be enforced throughout the course of a tumultuous construction schedule.

Sea-Tac Airport accomplished this notable feat by using their considerable in-house expertise, and did not miss a step in their operational tempo. Managers of the airport's facilities aviation division leveraged their membership in the Plant Operations Support Consortium to support the building initiative.

Michael Feldman, Sea-Tac's director of Airport Facilities, contacted Consortium staff in November 2000 and requested they develop a proposal that would support the airport's need to create its own building department. The airport, having launched an aggressive multi-year construction program, was exercising its unique "municipality"

standing to create a department which would include plan review, inspection, quality control and permitting functions. The resultant Consortium proposal included department development and, most importantly, an interim building official in the form of David Combs, then a project manager within GA's Engineering and Architectural Services.

International Conference of Building Officials. Barbera "backstopped" Combs as they got the department off the ground.

"We were conscious at all times of retaining the highest standards as we migrated our plan review, inspections and permit issuance functions from the City of SeaTac to the airport," said

Feldman. "Leveraging the state (through the Consortium), David Combs and Jerry Barbera enabled us to model the very standards we expect to enforce through this department."

The challenges confronting Feldman, his staff and the interim department personnel were sizable. The new building



The new department's premier permit is issued in February by **David Combs** (far left), Acting Building Official, to **Sam Wright**, Port of Seattle STEP project leader. Celebrating the event is **Eric Cutbirth** (between Combs and Wright), also from the STEP project. To Wright's left are **Rick Panos**, STEP project; **Bruce Swanson**, deputy director of the aviation project management group; **Michael Feldman**, director of Sea-Tac aviation facilities; and **Jerry Barbera**, acting assistant building official.

Combs, an architect, had served as City Building Official of Olympia for eight years. He was contracted through the Consortium to serve as Sea-Tac Airport's first building department manager.

"David brought tremendous experience to this challenging assignment," said Feldman. "His contributions, combined with Consortium staff response, a top-notch consultant and other department staff, have enabled the airport to proceed with a critical initiative and resulted in positive synergies that enhance on-going operations and plans."

Feldman quickly added a large dose of experience and proven performance to the mix by engaging Jerry Barbera, P.E., a consultant and president of The Codes Knowledge Company. Barbera is a retired regional administrator of the

department would be responsible for the administration and enforcement of most laws regulating construction. The state's Department of Labor and Industries would assume responsibility for electrical plan review, inspections and permit issuance and work closely with the new airport building department.

"We recognized that the new department would exist for one purpose - to serve the various airport constituencies and publics by ensuring that the safety contemplated by its various codes became an accomplished fact," said Feldman. "We needed to facilitate proper codes administration by ensuring the building department is properly staffed, supported and financed."

*Please see Department, page 7*



## Department

**(Cont. from page 6)**

In November, David Combs and Jerry Barbera were provided temporary digs in the Kilroy office building, across from the airport. Terry Tackett and Gary Wilkerson, building inspectors, were brought on board by the Consortium to augment the fledgling department and provide critical plan review and onsite inspection capabilities. The addition of administrative support rounded out the department staff.

The first building-originated permit was issued in February, just eight weeks after the transition commenced. David Combs and Jerry Barbera joined Michael Feldman for a photo op to commemorate the event. A formal open house

celebrating the new department's creation and institutionalization took place February 15 in the airport building department's office in the Kilroy Building in the City of SeaTac.

The pace has not lessened for either the building department staff, nor Feldman. A permanent building department manager must be hired and then supported as he/she permanently recruits for other department positions. At press time the recruitment for manager of the Airport Building Department had just closed and applicants were being screened.

"We will be refining roles, responsibilities and relationships as the department

matures," said Feldman. "Plan review, inspection, quality control, and permit issuance functions will receive increased prominence as our construction schedule accelerates in the months ahead."

Feldman acknowledges the Consortium's contributions to the effort. "The ability to reach first-class talent such as David Combs and Jerry Barbera, bring on temporary inspectors and work through problems quickly was enhanced through our membership in the Consortium."

**For further contact David Combs, Engineering and Architectural Services, (360) 902-0922, E-mail: dcombs@ga.wa.gov**

## Airport member does battle with the "energy hog"



**Doug Holbrook**

Energy conservation is the byword these days, and facilities managers all over the Northwest are striving to keep their energy costs to a minimum. Like many Consortium members, managers at Sea-Tac International Airport noticed an unanticipated spike in their energy bills this past winter. Rising energy costs for natural gas and electricity at the airport caused a

\$10.7million overrun in last year's operating expense, according to Doug Holbrook, manager of Business and Utilities Management. The airport has been forced to absorb nearly 60% of that cost. Holbrook's work group is part of the Airport's Aviation Facilities Division.

Holbrook served as a presenter during the recent Consortium-produced videoconference and used the airport's response toward rising energy costs during the current crisis to drive his points home.

"The airport is fighting back," said Holbrook. "Recent employee efforts are already paying off with a 10% reduction in usage, but we're not stopping there. The conservation target is even more aggressive. We are working toward a larger reduction."

The Port of Seattle and Sea-Tac International Airport are

indeed making progress. They've implemented a number of innovative strategies to reign in the "energy hog" and are delighted to be able to recommend these strategies to other facility managers. The list is impressive, by any standards.

The airport's operating engineers started by shutting down a 1,000-ton cooling unit and substituting a plate frame heat exchanger. This substitution resulted in energy savings of 321,000 kilowatt-hours during the cold weather season. Additionally, the airport has now reduced its take from the electricity grid by 18% as of May 1, 2001 by starting up two of its own generators.

There's more. The baggage-handling maintenance crews have shut down redundant baggage-handling systems wherever possible. Escalators are being retrofitted with energy-saving devices or shut down when not needed. Thermostat set points have been adjusted to reduce the amount of energy used for heating and cooling. Two thousand incandescent light bulbs are being replaced with fluorescent bulbs, and airport electricians are installing photocells on lighting circuits near windows and skylights to turn off lights when there is sufficient ambient lighting.

"We've also launched into performance contracting to replace outdated energy-inefficient lights and equipment with modern, cost-efficient device," said Holbrook. "Clint Loughheed and the state's energy professionals have been most helpful in our efforts."

**For more information, contact Doug Holbrook, (206) 433-4600, E-mail: holbrook.d@portseattle.org**

## Seismic

(Cont. from page 1)

The building underwent a classic, true seismic test at 10:54 a.m., Feb. 28, 2001. On that date Olympia experienced a 6.8 earthquake, centered just 12 miles northeast from the newly



A worker completes installation of seismic shear walls in the Dolliver Building basement. Notice the 3/4" steel rebar on 12" centers encased in 8" of shotcrete used to stiffen the concrete. (Photo by Nick Cockrell)

restored office building, underscoring the area's classification of seismic zone 3, the same as areas of California.

With the exception of several large filing cabinets tipping over in the basement and items shaken from their shelves throughout the building, the structure itself sustained no major damage from the quake. Numerous cracks were observed in the plaster along unreinforced hollow clay tile walls, in a north-south direction that reflected the wave pattern of the quake, emanating from 30 miles underground. Cockrell believes the damage, estimated at less than

\$50,000, proved the value of seismic upgrades and proactive construction planning. In contrast, the state's nearby 1927-vintage Legislative Building received almost \$21 million in damage to the dome, plaster and non-supported structures.

"We're absolutely delighted with the way the Dolliver Building reacted to a major seismic event. It weathered the shaker very well," said Cockrell. "Its performance validates new codes, as well as our attention to detail and engineering efforts focused on the project from start to finish. It clearly demonstrates that an historic building can be rebuilt to retain an important link to the community's past and still safely reflect the needs of housing government services in the future."

**Jim Erskine is with the GA Office of Public Affairs. For further information, contact Nick Cockrell @ (360) 902-7383, E-mail: ncockre@ga.wa.gov**

## Northwest drought spikes sales of waterless toilets

Washington's water crisis has had a positive effect on the sales of waterless urinals, according to Bill Slaughter, sales representative for Waterless Company. The Glendale, California-based company contends its "No-Flush™" urinals are "becoming the new urinal standard in the U.S. and worldwide and are the next generation of environmentally-friendly plumbing fixtures which do not compromise functionality and hygiene."

Engineered to outperform one-gallon flush urinals, no-flush urinals need no water. They can save up to 45,000 gallons or more of potable water per year. Washington Governor Gary Locke has declared the state in a drought, and public facility managers are taking closer looks at water-saving devices.

"'No-Flush' urinals are used extensively in high-traffic facilities, including military, national parks, schools, factories, office buildings and restaurants," said Slaughter. "They have gained tremendous acceptance in those facilities owing to reduced maintenance and improved performance."

Slaughter's best-selling urinal is available to public agencies under GSA Schedule Contract #GS-07F-0124J. A number of Consortium members have purchased fixtures from Slaughter's company, including General Administration, Northshore and Peninsula school districts and The Evergreen State College.

**For further information, contact Bill Slaughter, Waterless Company, (800) 969-6364.**



"No-Flush" urinals have been installed in a number of Consortium member facilities. These two are used in a Northshore SD elementary school.

## Consortium partners with Tero Consulting to provide CMMS forum

Finally, a web-based discussion forum designed just for you — the POS member — to chat about computer-assisted facilities management/maintenance systems. An agreement with Tero Consulting in British Columbia (<http://www.teroconsulting.com/>) has resulted in an excellent forum for telling it like it is. Questions, answers, best practices, lessons-learned ... anything that applies to computerized maintenance management systems is fair game. Members have long requested such a forum and now we hope you'll make maximum use of the service.

We extend our sincere thanks to Tero Consulting, Ltd. for making this a reality. This is not the first time Tero has partnered with public agencies or associations. The firm also sponsors the web page of the School Plant Officials Association of British Columbia (see page 3).

Here's how to log on to your CMMS Forum:

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